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Legislatures, Initiatives, and Representation: Comparing the Effects of Institutions on Policy Outcomes

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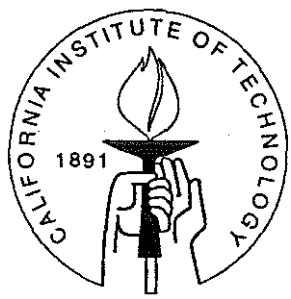

SOCIAL SCIENCE WORKING PAPER 798

June 1992

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Abstract

This research compares policy outcome resulting from the legislative process and the direct ballot process to estimate the effect of political institutions on preference aggregation and policy outcomes. Using data from California statewide elections, we analyzing policies which were considered in both processes and for which the two processes led to different outcomes. We conclude that features of the legislature, especially party, may lead legislators to vote against their district majority preference, and therefore lead legislative and direct ballot outcomes to diverge.

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1 Introduction

In recent years, the direct ballot process has received a great deal of attention as an alternative to traditional legislative politics at the state and local levels.[1] In this research, we consider the legislative and direct ballot processes as two alternative institutional arrangements for aggregating citizen preferences in democratic governments. The rules and procedures that define each process shape the way preferences are translated into outcomes. This means that the two processes may produce different outcomes in a given policy area, and that a given policy may be more (less) likely to pass if considered in one process than if considered in the other.

We compare policy outcomes resulting from the legislative process and the direct ballot process for several policies which were considered in both processes. This is the case for any legislative initiative statute, legislative constitutional amendment, referendum, or bond issue, which must first be considered in the state legislature and then either accepted or rejected by the electorate. It can also be the case for citizen sponsored initiatives which are introduced in response to either failed or enacted legislation.[2] The question is whether there are systematic differences in the policies the two processes produce, and whether we can attribute these differences to differences in the institutional arrangements. Comparing outcomes from two processes on a given policy allows us to "hold constant" issue content and political context, and to isolate the effects institutionals.

Table 1 shows the propositions which were considered in both the legislative and direct ballot processes at the statewide level in California between 1974 and 1990, and the

[1] By direct ballot, we mean direct citizen voting on public policy propositions through the initiative or referendum. See Magleby, 1984.

[2] We expect there to be some differences in the types of measures generally considered in the legislative and direct ballot processes, especially in terms of the subject area and content of the measures, whose interests are represented, etc.. The current research is concerned with how the two processes produce different outcomes on a given policy, and so while questions about what gets on the agenda define our set of relevant cases, this agenda-setting process in treated as exogenous.

policy outcomes from each process.[3] In 65 of the 194 cases considered, the legislative and direct ballot processes, if operating separately, would have led to different policy outcomes on identical (or very similar) measures in an identical political environment.[4] To restate the empirical question, can we attribute differences in policy outcomes, especially in the off-diagonal cells of Table 1, to differences in the institutional arrangements which characterize the two processes? More generally, can we compare the effects of the institutional structures defining the legislative process and the direct ballot process to enrich our understanding of how political institutions influence policy?

Table 1
Number of Statewide Ballot Measures Considered by Both the California Legislature and the California Electorate 1974-1990

		Ballot Outcome: Passed	Ballot Outcome: Failed
Legislative Outcome	Passed	88	35
	Failed	30	41

Data: All measures considered by both the California State Legislature and on the statewide ballot. Excludes bond measures and measures not brought before the legislature.

To compare legislative and direct ballot outcomes, we posit two alternative models of legislative behavior that provide the framework for testing hypotheses about preference aggregation and policy outcomes. The first is a very simple model of legislative

[3]The data for this analysis are from California statewide elections. 25 other states also have provisions for direct legislation, and so our analysis and conclusions are applicable to those states as well.

[4]In cases of legislative constitutional amendments, legislative sponsored initiatives, referendums, and bonds, the measures considered by the legislature and the electorate are necessarily identical. In cases of initiatives introduced in response to failed legislation, the measure introduced as the initiative is often slightly different from the original measure considered by the legislature.

behavior in which representatives respond only to the constraints placed on them by the constituents in their districts. This behavior is analogous to the behavior of re-election oriented legislators in spatial voting models who are only concerned with how voters will react to their legislative decisions (Downs 1957, Mayhew 1974). These spatial voting models suggest that as long as representatives are only concerned with winning elections and thus respond only to voters in their districts, then over a single dimension, representatives will choose the policy position of the median voter in their district. Empirically, this translates into a vote in accordance with the district majority preference when voters are expressing a binary choice. We can call this a delegate model of legislative behavior because the representatives behave as perfect delegates to the majority of voters their districts.

The behavior described by this model results in the same outcomes we would expect if citizens voted directly for policy and a simple majority rule dictated the process of preference aggregation. The primary difference between this simple legislative model and the direct ballot process is that according to the model, voters are grouped into districts and elect their delegate, whereas in direct legislation they vote at large. At the district level, however, the outcomes resulting from the legislative process under this model are identical to the policy outcomes resulting from a simple majority rule aggregation of voter's preferences.

The second model of legislative behavior is a richer model which allows representatives to have multiple goals and preferences, and in which they respond to the incentives and constraints introduced by the legislative institution. Thus, rather than simply being interested in re-election and therefore responding only to voters, representatives under the second model can also be interested in power and position within the legislature, policy outcomes, legislative coalitions, etc. (Fenno 1973). To the extent that legislative institutions are important, we expect the behavior of the representative to diverge from that of the simple delegate actor in systematic ways. In other words, the effects of district preferences on legislative behavior become relatively less important as other influences act upon the legislator and move his or her vote away from the district mean or median. According to this institutional model, we predict that legislators will pick policy positions which diverge systematically from the median position in their district. To the extent that this model captures the essential elements of legislative behavior, we expect legislative outcomes and direct ballot outcomes to be different.

We know from a vast body of theoretical and empirical evidence that the institutional model is the better descriptive model of legislative behavior, that legislative institutions do affect behavior in systematic ways. The question is, how far can we go towards explaining outcomes with the delegate model, and how much better does the institutional model perform? To the extent that the institutional model explains differences in the aggregate policy outcomes, testing this model allows us to estimate how much difference in policy outcomes we can attribute to differences in the institutional structures.

2 Model Specification and Estimation Procedures

To test these alternative models, we estimate an empirical model of legislative roll call voting behavior explicitly including in the model a measure of direct ballot outcomes in the form of district level ballot returns.[5] The empirical analysis consists of two parts. The first is an analysis of legislative behavior in which the dependent variable is a legislator's roll call vote, and the independent variables are the constituency preference on the issue, measured as the district ballot return, features of the legislature such as committee and party, and campaign contributions. To the degree that district preferences are important in affecting legislative outcomes, we expect legislative and direct ballot outcomes to coincide.

The second part of the analysis attempts to reconcile legislative and direct ballot outcomes as a function of the legislative process. Using the coefficients estimated in the first step, we predict the probability of each legislator favoring the measure in the absence and in the presence of legislative institutions, and then compare those probabilities with actual votes. To the degree that the institutional model better predicts aggregate outcomes, we can estimate how legislative institutions are important in shaping those outcomes.

2.1 Individual Level Analysis

The first part of the empirical analysis is an individual level model of legislative behavior in which the roll call vote a legislator casts on a given issue, v_i, is specified as a function of a vector of constituency characteristics, $CONST_i$, features of the legislature including a vector of party system characteristics, $PARTY_i$ and a vector of committee system characteristics, $COMM_i$, the net campaign contributions, $MONEY_i$, received by legislator i relevant to the current measure,[6] and an error term, U_i. The specification of this model is represented in Equation 1 below.[7] A full description of the variables used

[5]The district level ballot return serves two functions in the analysis. First, it serves as our measure of constituency preferences in the model of legislative roll call voting (Deacon and Shapiro, 1975; Kuklinski, 1978; Snyder, 1991). Second, it provides the baseline to test our hypotheses about the role of institutions in the aggregation process.

[6]Hall and Wayman 1990 suggest that legislators may receive contributions from either supporters, opponents, or both. Thus, net contributions are those contributions from groups in favor of the measure minus contributions from groups opposed.

[7]Many theories of legislative behavior suggest that the campaign contributions a legislator receives and the roll call votes she casts should be treated as jointly determined and therefore estimated as included endogenous variables in a simultaneous system of equations. Most empirical analyses, however, find little evidence of endogeneity (see Chappell, 1982; Welch, 1982; Wright, 1985; Evans, 1986; Keim and Zardkoochi, 1988; Grenzke, 1989; and Hall and Wayman, 1990), with a few exceptions found in the

in the empirical analysis is found in Appendix A.

$$V_i = \beta_0 + \beta_1 CONST_i + \beta_2 PARTY_i + \beta_3 COMM_i + \beta_4 MONEY_{1i} + U_{1i} \quad (1)$$

2.2 Aggregate Level Analysis

The second part of the empirical analysis attempts to reconcile the aggregate legislative and direct ballot outcomes as a function of the legislative process. We begin with the simple delegate model of legislative behavior in which representatives are only influenced by their districts' preferences. The percent in the district in favor of the measure, as indicated by the district ballot return, is taken as the initial probability of the delegate style representative voting "yes" on the measure, in the absence of other pressures. Thus, for example, if 55% of the voters in the district voted in favor of the measure, then the initial probability of the legislator from that district also voting "yes" on the measure is 0.55.[8]

For each legislator, we adjust the initial probabilities of voting in favor of the measure to reflect the influences of the legislature as estimated in Equation 1. For example, suppose we estimate the effect of campaign contributions on the probability of voting in favor of the measure as 0.4 in the first step. For each legislator, we multiply the contributions they receive by the coefficient of 0.4. This procedure is repeated for all of the estimated effects, and then the numbers are summed and converted back into probabilities making some (standard) assumptions about the distribution of the error term. If we assume that the underlying probabilities are normally distributed, the probability associated with each legislator's Z score (the sum of the estimated effects) is the area under the cumulative normal curve from $-\infty$ to Z.

We can then assess the effects of these institutional factors in the aggregate by comparing the adjusted probabilities of legislators voting in favor of the measure with their actual roll calls. The question is, how well does the delegate model predict roll call votes? Under the null hypothesis in which legislative institutions are unimportant, we expect

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works of Frendries, 1985; Saltzman, 1987; Wilhite and Thielman, 1987; and Wilhite, 1988. Estimating the current models treating money and votes as jointly determined produces inconclusive evidence for rejecting the hypothesis that the two are independent, and so the simple, single regression model is used here.

[8]Other functional forms are possible to describe the relationship between district ballot return and the initial probability of the legislator favoring the measure. For example, we could imagine a non-linear relationship in which changes in district support at the extremes have very little effect on the probability of the legislator supporting the measure, while changes in levels of district support around the 50% point change the probability of voting substantially. Similarly, one could imagine the relationship as a step function in which the probability of the legislator voting in favor is zero in some ranges of district opinion, positive but low in other ranges of district opinion, positive and higher in other ranges, and so on.

the delegate model to predict roll calls quite well and for the addition of institutional effects leave our predictions largely unchanged. Under the alternative hypothesis in which institutions do matter, we expect the delegate model to predict quite poorly and for the addition of the institutional effects to make a substantial difference.

3 Empirical Analysis

We estimate the model of legislative behavior using data from two policy measures which were considered in both the California legislature and the California electorate, and for which the two processes led to different policy outcomes.[9] The first is a cigarette tax increase introduced in 1983 and rejected by the legislature as SB161 and then reintroduced and passed as a citizen sponsored initiative, Proposition 99, in November 1988. The second case is a transportation bond, approved by the legislature in 1988 as SB140 and ultimately rejected by voters as Proposition 74 in June 1988.

3.1 Cigarette Tax

The first case we examine is a cigarette tax measure, defeated in the California State Senate in 1984 as SB161, reintroduced and passed as an initiative, Proposition 99, in November 1988. SB161 was introduced by Democratic Senator Alan Robbins (D-Los Angeles) in 1983. The bill called for a 5 cent increase per pack of cigarettes. Other salient provisions of the measure included: (1) reducing the amount of cigarette tax revenues distributed to counties and cities from 30% to 20%; (2) imposing an excise tax on wholesalers of tobacco products in the amount of 10% of the wholesale price of the product; (3) appropriating $135 million from the General Fund to the University of California.

SB161 was co-authored by seven Democratic Senators and seven Democratic Assembly Members and was initially supported in the Senate by the Democratic leadership. Initial legislative opposition came from Senate Republicans. Corporate interests were also involved in the legislative phase, with the health industry aligning and lobbying in favor of the bill, and the tobacco industry lobbying against. The measure received a majority vote in the Senate but not the necessary 2/3 supermajority vote necessary to pass revenue measures as stipulated in the state constitution. Another measure, ACA14, was introduced in the Assembly in 1987 and was defeated in committee.

[9] By selecting cases for which the two processes led to different outcomes, we are considering only two of the four possible outcome combinations (see Table 1). However, we are interested primarily in differences between legislative and direct ballot outcomes *at the district level*, which are likely to occur in any of the four types of cases.

In 1988, a coalition of health industry groups, citizens groups and legislators under the aegis of "Coalition for a Healthy California"[10] introduced Proposition 99, the Cigarette and Tobacco Tax. Proposition 99 proposed a 25 cent increase in the tax on a pack of cigarettes, plus additional taxes on other tobacco products. These revenues were earmarked for spending on health related programs, including health education, hospital services, physician services, research, and public resources. The ballot campaign in favor of the measure, financed primarily by the health industry, framed Proposition 99 as a health care issue, and spent about $1.6 million over the course of the campaign.

The tobacco industry countered with a costly and controversial campaign of its own. Spending over $21 million on the campaign, the tobacco industry tried to frame the cigarette tax increase as a crime issue, arguing that higher cigarette taxes in California would lead to smuggling of cigarettes from other states and to an increase in gang activity and other crime. Proposition 99 passed by a 57.8% majority on the November 1988 ballot.

The main problems with using the cigarette tax case to compare legislative and direct ballot policy outcomes are the 4 year gap between the two votes and differences in the wording of the legislative and direct ballot measures. The time gap introduces problems of inference associated with attributing differences in outcomes to differences in institutional processes. The research design requires that, in order to isolate the institutional effects, other possible influences on either legislative or voting behavior must remain constant. However, as more time passes between the two votes, the possibility that other factors such as preferences or the institutions themselves are also changing becomes greater.

The second problem is that the wording of the measures considered by legislators and the electorate were quite different. This raises the possibility that while both measures were concerned with raising the tobacco taxes, legislators might have perceived the measure quite differently than the electorate perceived it, and so the behavior they exhibited might have been evoked by different preferences and evaluations.

These problems are offset in two ways. First, other features of the cigarette tax case make it a particularly good case to use, especially that the measure was highly salient and well publicized, meaning that we expect citizen preferences to be relatively well informed. This is important because we require both representatives and contributors to anticipate the district ballot vote, and this becomes a more reasonable assumption when preferences are better defined. Second, several of the problems with the case are balanced in the selection of the second case which is described later.

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[10]The executive committee of the Coalition included the American Cancer Society, the American Heart Association, the American Lung Association, the California Association of Hospitals and Health Systems, the california Medical Association, Campaign California, the Planning and conservation League, and Assemblyman Lloyd Connelly (D-Sacramento).

3.1.1 Results

Empirical results from the estimation of Equation 1 for the cigarette tax case are presented in Tables 2 through 4. Table 2 reports the structural coefficients and standard errors for the model of legislative behavior. Since the estimates in Table 2 are probit estimates and are therefore difficult to interpret, I present in Table 3 illustrative values of several explanatory variables and the probabilities of voting in favor of SB161 associated with those values. Table 4 reports the analysis of aggregate outcomes.

Model of Legislative Behavior

Columns 1 and 2 of Table 2 report the structural coefficients and standard errors, respectively, for the roll call votes equation. We find that legislators responded to a variety of constituency and institutional pressures. District preference had a positive influence on roll call votes, with legislators from districts with a majority of voters in favor of the measure exhibiting a higher probability of voting in favor on the roll call. Salience of the issue in the district, measured as the ballot dropoff between the presidential race and Proposition 99, is also signed as predicted. The more the ballot dropoff, and thus the lower the salience of the ballot measure, the less constrained was the legislator in the direction of his or her district's preference.[11]

(Insert Table 2 Here)

Institutional position also influenced how a legislator voted on the bill. Members of the Revenue & Tax and Finance committees were less likely to cast a "yes" vote than their counterparts off the committees. Members on the Health & Welfare committee were more likely to vote in favor of the measure. Since the committee variables in this equation include a dummy variable for membership on the committee, times a party variable scored 1 for Democrats, 0 for Independents, and -1 for Republicans, we are able to test the differential impacts of committee position on Democratic and Republican committee members. As predicted, the interactive effect is evident, suggesting that the role of committee leadership partially replaces the role of party leadership and members of committees look more like other members of the committee and less like members of their party off the committee. Committee leadership moved Revenue & Tax and Finance members away from the mean position of their partisan counterparts off the committee, and Health & Welfare leadership reinforced the position of partisan leaders and moved members towards their mean partisan positions.

[11] This assumes that the salience of the presidential race was constant across districts, and that variations in dropoff can be attributed to differences in the salience of Proposition 99, and not the presidential race, across districts. We multiply dropoff by a dummy variable scored 1 if a majority of the district favored the measure and -1 if a majority opposed to capture the direction of constraint.

This is not to say, however, that partisanship was unimportant in influencing votes, and in fact we find that Democrats were much more likely than Republicans to vote in favor of the measure. This effect is large and statistically significant.

Finally, we find campaign contributions from relevant donors are positively but not significantly related to roll call votes.

Since the dependent variable in the legislative behavior model is dichotomous, the coefficients are probit estimates, and so the magnitudes of their effects are difficult to interpret and depend on the values of the other explanatory variables. Thus, we include Table 3, which shows illustrative values of some of the independent variables and the effects of changes in those variables on the probability of legislators voting in favor of the measure. The first column of Table 3 shows district preferences varying from 45 to 55 to 65%. Column 2 shows several levels of campaign contributions. Column 3 shows partisanship, with Republicans scored 0 and Democrats scored 1. Z, in the fourth column, is the sum of the effects of district preferences, legislator's partisanship, and contributions received as described in that row, plus the effects of the other explanatory variables set at their sample means. Column 5 then shows those Z scores re-converted to probabilities assuming an underlying normal distribution. Reading across the first row, we take district preferences as 45% in favor, in a district in which a Republican Senator received $10,000 in relevant contributions. The probability of a Senator in such circumstances voting in favor of the measure is 0.0000. Similarly, reading across the last row, a Democratic Senator whose district voted in 65% in favor of Prop 99 and who received $45,000 in contributions has a 0.9999 probability of voting for SB161.

(Insert Table 3 Here)

Several points are relevant. First, partisan differences are great. Democrats at nearly all levels of district constraint and interest group pressure have a greater than .5 probability of voting in favor of the measure, while Republicans from nearly all levels of constraint and pressure are likely to vote against. And second, to the degree that Republicans do have a greater than .5 probability of voting in favor of the measure, it is only those Republicans from districts with high levels of support who receive high campaign contributions. Democrats are likely to vote against the measure only at very low levels of district support and contributions.

Comparing Legislative and Direct Ballot Outcomes

The final step in the empirical analysis is to use the results of the individual level estimation to re-create the collective policy outcomes. As described earlier, we begin with an initial probability of each legislator voting in favor of the legislation as the percent in the district voting in favor on the corresponding ballot measure. We then adjust the probability for each legislator to reflect the influences of the legislative institution estimated in the individual level analysis. Thus, if the initial probability is .48 and the coefficient

on party is positive, for example, we increase the initial probability in a positive direction. The adjusted probabilities are then compared with actual roll call votes. In a completely specified deterministic model, the roll call votes and the adjusted probabilities would match exactly. Discrepancies between the votes and probabilities, then, reflect either omitted variables, which can be detected through an analysis of the residuals, or stochastic variation.

Table 4 presents the results of the aggregate analysis. Columns 1 through 3 show each Senator's district, name, and roll call vote, respectively. Votes are scored 1 if the Senator voted in favor of the measure, 0 if she voted against, and are dropped if the Senator abstained.

(Insert Table 4 Here)

Column 4 shows the percent voting in favor of Proposition 99 in each district. This is taken as the initial probability of the legislator voting in favor of the measure. Bold faced entries indicate cases in which the actual roll call vote was different from what we would expect if the legislator was acting as a pure delegate, legislative institutions were unimportant, and the representative responded only to his or her districts' preferences. In other words, "missed" cases are those in which the initial probability of voting in favor of the measure was above .5 but the legislator voted no, or the initial probability was below .5 but the legislator voted yes. As we can see, the delegate model mis-predicts 15 of the 37 votes. In most of the missed cases, the initial probability was above .5 and the legislator voted no.

Column 5 shows the Z score for each Senator. Z is simply the sum of the estimated coefficients times the value of each corresponding variable for each individual, that is,

$$Z_i = \Sigma X_i \hat{b}$$

The coefficients estimated in the individual analysis are multiplied by the value of the explanatory variables for each legislator, and the sum of all the effects equals Z. Using the coefficients reported in Table 2, Z_i is calculated as:

$$\begin{aligned} Z_i \quad & -9.32 + .15(\%\text{Yes99}) + 3.23(\text{Party}) \\ & -1.21(\text{Rev and Tax} * \text{Party}) - 1.17(\text{Fin} * \text{Party}) \\ & +4.16(\text{Hlth and Welf} * \text{Party}) - .31(\text{Dropoff}) \\ & +.16(\text{Money}) \end{aligned}$$

Column 6 shows each Senator's Z score re-converted back into a probability assuming a normal distribution of the probabilities. This, then, is the adjusted probability of each legislator voting "yes" on the measure, accounting for the effects of the legislative

institution, which is simply the area under the cumulative normal curve between $-\infty$ and Z. Bold faced probabilities represent cases in which the model mis-predicted the actual roll call, that is, in which the adjusted probability is above .5 but the Senator voted against the measure, or in which the adjusted probability is below .5 but the Senator voted in favor.

As we can see, the model including the legislative effects recreates actual roll calls much better than the one including only constituency effects. The full model only mis-predicted 7 cases, compared with the 15 missed in the initial model. Examining the cases which the model mis-predicted, three of the estimated probabilities were above .5 and the legislator voted against the measure, and four others were below .5 and the legislator voted in favor. Four of the missed cases were Republicans, three were Democrats. Five were on committees with jurisdiction, and two were not. In general, there are no obvious patterns in the missed cases.

3.2 Transportation Bond

The second case was selected to complement the first case. This case is a transportation bond measure, introduced and passed as SB140, 1988, and then defeated in the electorate as Proposition 74, Nov 1988.

SB140 was introduced in the State Senate by Wadie Deddeh, Democrat from San Diego and member of the Transportation Committee. The measure authorized the state to issue $1 billion in General Obligation Bonds to be used to supplement federal, state, and local revenues already committed to capital improvements on state highways, local streets and roads, and rail transit. Initial supporters in the Senate included members from urban districts. Opposition in the State Legislature was weak, unorganized, and insubstantial. The measure was referred to Appropriations in the Senate, passed 27 to 7 on a floor roll call, and was subsequently referred to Ways & Means in the Assembly and passed 54 to 14.

When the measure was passed on to the electorate as Proposition 74, endorsements came from Governor Deukmejian, who personally contributed $19,000 to the ballot campaign in support of Proposition 74, and loaned the campaign an additional $280,000. $332,025 was spent on the ballot campaign, with contributions coming primarily from the transportation, construction, oil and gas, and financial industries. Early survey evidence showed that Californians supported the measure by a margin of 64% to 27% with 9% undecided in April 1988 (The California Poll, #1437, April 21, 1988). On election day, the measure failed in the electorate by a very slim margin.

The transportation bond provides an excellent second case with which to test our hypotheses about the effects of legislative institutions. In the transportation bond case,

the two versions of the measure were worded identically.[12] In addition, the two votes occurred in close proximity, with SB140 approved in the legislature on March 14, 1988 and the measure considered by voters on June 7, 1988, less than 3 months later. To the degree that the cigarette tax provides a weakened test of the hypotheses because of the differences in question wording and time gap between the two votes, the transportation bond compensates on those dimensions.

The main weakness with the transportation bond case is that the measure was less publicized, and so we need to worry about how well formed and stable were citizen preferences towards the measure. In order for the legislative delegate model to work in the real world, representatives must be able to estimate their districts' preferences (and thus their votes) long in advance of the ballot vote. From the survey evidence, it is clear that preferences changed a lot over the course of the ballot campaign. For legislators to act as delegates of their constituents, they need to anticipate this change, and this becomes more difficult if preferences are highly labile.

3.2.1 Results

Tables 5 through 7 present the results of the estimation of Equation 1 for the transportation bond case. Table 5 reports estimates of the individual model of legislative behavior for the State Assembly vote on SB140.[13] Table 6 presents illustrative values of several explanatory variables and the predicted probabilities of legislators voting favorably on SB140 associated with those values. Table 7 presents the aggregate analysis of policy outcomes.

Model of Legislative Behavior

Columns 1 and 2 of Table 5 report the structural estimates and standard errors for the roll call votes model. District preferences towards the measure are strongly and positively related to the probability of the legislator voting in favor on the roll call. This suggests that legislators were constrained by their districts' preferences and tended to vote with their district's majority. In addition, other constraints imposed on legislators by their constituencies were also important in influencing roll call votes, especially issue salience. Members from districts with high levels of dropoff, and thus low issue salience, were less constrained by their districts and were thus less likely to vote in the direction of their district's majority preference. Legislators from high salience (low dropoff) districts were more likely to vote with their districts.

(Insert Table 5 Here)

[12] This must necessarily be the case with all bond measures.

[13] Although the bill was voted on (and passed) in both the State Assembly and Senate, we limit our analysis to the Assembly vote.

Several of the institutional variables also showed some effect on roll call votes. The effect of partisanship is negative, with Republicans more likely to vote in favor of the bond than Democrats. The standard error on this estimate, however, is very large.[14]

Committee position, in particular the interaction between committee membership and the legislator's party, also had some effect on how a legislator voted. Members of the Ways & Means committee became more like their partisan counterparts off the committee. For Democrats, this meant becoming more opposed to the measure, and for Republicans this meant becoming more favorable. Members of the Transportation committee became more polarized in the opposite direction of other partisans. Democrats on the committee favored the measure more than Democrats off the committee, and Republicans off were more opposed than Republicans on.

Finally, the effect of transportation industry contributions is positive but small and not statistically significant.

Illustrative values and the associated predicted probabilities for the roll call votes equation are presented in Table 6. This table is interpreted in the same way as Table 3 for the cigarette tax case. For Democrats, low district support for the measure at all levels of contributions led to a predicted probability of favoring the measure of less than .5. Similarly, high district support at all levels of contributions led to a probability of favoring the measure of well above .5.

(Insert Table 6 Here)

For Republicans, all combinations of district preferences and campaign contributions lead to a predicted probability of the legislator voting in favor of SB140, and in fact, all of the Assembly Republicans did vote in favor of the measure (or abstain) on the actual roll call.

Comparing Legislative and Direct Ballot Outcomes

Finally, as with the cigarette tax case, the estimates from the individual model of legislative behavior are used to test hypotheses about the relationship between legislative and direct ballot outcomes and to further explore the predictive powers of the delegate and institutional models of legislative behavior.

(Insert Table 7 Here)

For each district, Table 7 lists the legislator's district, name, roll call vote, district majority preference, Z score, and adjusted probability. As in the previous analysis, we

[14]Since all of the Republicans voted yes on the transportation bond and Democrats split 22 in favor and 14 opposed, a legislator's party is an excellent predictor of votes for Republicans but a rather poor predictor of votes for Democrats.

use the percent favoring ballot Proposition 74 as an estimate of the initial probability that a legislator will also vote in favor of the measure. We then adjust the initial probabilities to account for the effects of institutional factors on individual legislative behavior as estimated in the individual level model. These adjusted probabilities are then compared to the roll call votes, and matches between district majority preferences and roll call votes are noted. To the degree that the adjusted probabilities, reflecting institutional effects, better predict actual behavior, then this stands as empirical evidence for the institutional model of legislative behavior and for the prediction that the legislative and direct ballot processes lead to different policy outcomes.

Column 3 of Table 7 shows each legislator's roll call vote, with votes in favor scored 1 and votes against scored 0. Abstentions are noted as (.). Column 4 shows the percent in each district voting in favor of Proposition 74. Bold faced entries are those in which the roll call vote and the majority preference diverged. 27 out of 68 districts were mis-predicted. All but 4 were districts in which the majority preference was against the measure and the legislator voted in favor.

Column 6 shows the adjusted probabilities reflecting the institutional effects estimated in the individual model. This model predicts roll calls remarkably well. Only 8 cases are mis-predicted, with 4 predicting a negative vote when a positive one occurred, and the other 4 mis-predicting positive votes. All 8 missed cases were Democrats. The conclusions which flow naturally from this analysis are that while there is considerable support for a delegate model of legislative behavior in the estimated effects of district preferences on roll call votes, institutional effects are also important, and it is these institutional effects which lead legislative outcomes away from direct ballot outcomes.

3.3 Comparisons between the Two Cases

We can compare the estimates from the two cases to begin generalizing about the determinants of legislative behavior and the importance of legislative institutions on shaping outcomes. In both cases, the effect of district preference is strong and positive in both cases. We can conclude from the importance of this effect that legislators in American democratic government, or in the California state legislature at least, are responsive to the preferences of their constituencies and behave in a way consistent with the delegate model of representation. Other factors are found to affect behavior as well, but the influence of district preferences is powerful and important.

Patterns of effect and significance for the other variables are remarkably similar across the two cases as well. The effects of issue salience, committee positions, partisanship, and contributions on legislative behavior are in the directions we expect and are of about the same magnitude and level of significance in the two cases. The standard error on the coefficient for partisanship is much larger in the transportation bond case than in the cigarette tax case, but this is probably because of the unusual distribution of the variable

itself - no Republicans voted in favor of the measure, so we only have variance in voting behavior for Democrats - rather than the importance of the effect.

4 Conclusions

We are now in a better-position to draw conclusions about the linkages between district preferences and legislative behavior. The primary inference we make from the individual level analysis is that district preferences are clearly an important component of legislative decision making. Analysis of the empirical results shows that district preferences are strongly related to roll call voting behavior, that legislators respond to the constraints imposed on them by voters in their districts. This serves as at least partial evidence for a delegate theory of legislative behavior in which the preferences of voters and the behavior of their representatives are closely linked.

The degree of constituency constraint a legislator faces depends on both the size of the majority in their district and the level of salience of the issue. The size of the majority determines how much support legislators are likely to find in the electorate depending on how they vote. If there is a large majority in favor of the measure, and if the legislator votes against her district's majority preference, then assuming voters care enough about the measure to make it an important election issue, the legislator is left with only a few supporters. If the district is evenly split on the measure, with a small majority and a relatively large minority, then whichever way she votes, the legislator will find a large group of support and so is less constrained.[15]

Salience is important in determining how strongly voters feel about the issue, and how much effort they are willing to exert to express their preferences and presumably how much they are willing to exert to enforce favorable behavior by their representatives. When an issue is highly salient, legislators take greater notice of their constituent's preferences and are more constrained by the district majority. If the issue is of low salience, legislators are less constrained and have more flexibility to respond to other considerations.

Even though district preferences serve as important constraints on legislative behavior, this is not to say that legislators act as perfect delegates, that they represent their districts' preferences as the voters would represent themselves. In fact, the empirical analysis suggests that party institutions in the legislature have an important independent influence on a legislator's voting decisions and serve to move legislative behavior away from the median preferences within each legislator's district. Several theories explain the possible mechanisms through which influences of the party system are translated into constraints upon legislative behavior, and include the influences of other like-minded

[15] This argument is similar to Fiorina's (1974) discussion of constituency conflict and consensus.

partisans and especially party leaders. Partisan influences and the position of party leaders can either reinforce or conflict with constituency influences in shaping a legislator's behavior, depending on the direction of each influence. When a legislator's district and party leadership concur on an issue, legislators should feel strongly constrained to vote in that direction. When the district majority and party leadership take opposite sides of an issue, the relative influence of each will determine how the legislator votes.

Other institutional influences are important in moving legislators away from their district majority or median preferences as well, especially committee position. The theory of committee influences offered here is that, like party leaders, committee leaders have resources they use to influence their members and so can move legislators in the direction of their own preferences. Again, the influence of committee leaders will in some cases be in conjunction with and in other cases in conflict with the preferences of party leaders and the district majority.

4.1 Linking the Legislative and Direct Ballot Processes

From the aggregate level analysis, we are able to draw conclusions about the linkages between the direct ballot process and the legislative process. We found that although district preferences are strongly related to legislative behavior, a model of policy outcomes which attempts to predict outcomes as a function of constituency constraints alone performs quite poorly. On a district-by-district basis, the delegate model mis-predicts nearly half of the legislative votes for both the cigarette tax and the transportation bond. In other words, only half of the legislators behaved in such a way that the policy outcomes they would have produced matched the comparable policy outcomes their districts themselves would have produced.

On an aggregate basis, the delegate model also mis-predicts the policy outcome for both cases. For the cigarette tax case, legislators voting with their districts would have passed the measure which they in reality voted down, and for the transportation bond case, legislators voting with their districts would have tied half in favor and half against, and so the ultimate policy outcome would have depended on the rules for breaking ties in the particular institutional setting.

Adding the effects of features of the legislative institution improves the aggregate model and our ability to predict outcomes.

4.2 Motivating Questions

This analysis began with the following motivation question: do legislative institutions lead to different outcomes than direct ballot institutions? The empirical analyses and especially the analysis of aggregate policy outcomes suggests that, indeed, the two processes lead to different outcomes for a given issue and a given distribution of voter preferences.

We expect the direct ballot process to produce outcomes in line with the median of voter preferences. This might not be the same as the median of all citizen preferences, given differential turnout and preferences across different types of voters, but it is a predictable outcome which is consistent with the norms of democratic theory.

Our expectations about the nature of outcomes the legislative process produces are less precise. We know that strict delegate legislators will vote in line with the median preference in their district, and as long as legislator's preferences are aggregated according to simple majority rule, the policies produced will approximate the median of the district medians. Our analysis strongly suggests, however, that the delegate model only captures some of the important elements of actual legislative behavior, and that in fact, legislative institutions move policy outcomes systematically away from the median of the district medians. The net effect of these institutions will depend on the amount of constraint faced by the legislator and her ability to respond to the incentives provided by the legislative institution.

5 Appendix A

The following section describes the data used to estimate the model of legislative behavior and test the hypotheses about the relationship between legislative and direct ballot outcomes for the cigarette tax and transportation bond cases. These include the variables used to operationalize the estimation of Equation 1.

5.1 Cigarette Tax

The dependent variable in the roll call votes equation, v_{1i}, is measured as the roll call vote of Senator i on the Senate roll call vote on SB161 taken on May 19, 1983. This is the partial observation of Senator i's preferences for the cigarette tax policy, V_{1i}. Votes in favor of the measure are scored 1, votes opposed to the measure are scored 0, and abstentions are dropped. The results of that roll call were 22 in favor, 15 opposed.

Constituency effects are measured with two variables. **Yes99** is the percent of voters in district i voting in favor of Proposition 99. This provides both the measure of district preferences for the cigarette tax, and also forms the basis to compare the delegate and institutional models of legislative behavior. In order to make the hypothesis tests between the two models, we include this variable untransformed.[16] We expect legislators from districts with a large percentage in favor of the measure to be highly constrained and to also vote in favor on the roll call, for those with a small majority in favor to be constrained to vote in favor but with a lower probability, for those with a small majority opposed to be weakly constrained to vote against the measure on the roll call, and so on.

The second district preference variable is **Dropoff**, intended to capture the salience of Proposition 99 in the district. **Dropoff** is measured as the percent difference between the number of voters in district i who cast a vote on the presidential race, the lead race on the ballot, and the number who cast a vote on Proposition 99. This percentage is multiplied by 1 if the majority of the district was in favor of the measure and by -1 if the district was majority opposed. The interpretation of this interaction is that legislators from districts in which the measure is highly salient and a majority favors will be highly constrained to vote in favor, legislators from districts in which the measure is highly salient and a majority opposes will be highly constrained to vote against, and so on.

In addition to constituency effects, variables intended to measure the effects of features of the legislature are also included in the roll call votes equation. These include features of the party system and the committee system. Effects of the party system relevant to

[16]To test whether this linear specification is a good approximation of the actual relationship revealed in the data, we estimated the model with several other functional forms of the district preference variable to capture any possible non-linear effects between district preferences and roll call votes. We found that the relationship was well represented as a linear function, and so for simplicity and to facilitate the hypothesis tests, we include the district preference variable untransformed.

the legislator's vote are measured as his or her partisanship, **Party**. **Party** is scored 1 for Democrats and -1 for Republicans. Independents were dropped. In the 1983-1984 session of the California Senate, there were 25 Democrats, 14 Republicans, and 1 Independent. This variable is intended to capture both the influences of party leadership on party rank and file roll call votes, and also differences in ideology and policy preferences held by Democrats and Republicans. In the cigarette tax case, the Democratic legislative leadership favored the measure and the Republican leadership opposed it. Add to this the general pro-tax preferences of Democrats and the anti- tax preferences of Republicans, and we can expect Democrats to be more in favor of the tax increase and Republicans to be more opposed.

Committee system effects, and especially the influence of committee leadership on committee members are picked up as dummy variables for the legislators' committee memberships. **Rev&Tax*** is an interaction term between a dummy variable indicating whether the Senator was a member of the Revenue and Tax committee, which had jurisdiction over SB161, times a partisanship variable scored 1 for Democrats and -1 for Republicans. This interaction allows us to estimate the differential influences of the Democratic and Republican leaders on committee members from their respective parties. Thinking about committee membership as resembling a game with repeated play, we expect committee members to look more like others on the committee and less like their partisan counterparts off the committee. Thus, we expect Democratic committee members to be less favorable towards the cigarette tax and Republican committee members to be less opposed. **Finance*** is an interaction between a variable indicating membership on the Senate Finance committee, which also considered the bill, and the partisanship variable, as scored above. **Hlth&Welf*** is an interaction between a variable indicating membership on the Health and Welfare committee, which while not having jurisdiction over the bill can be expected to contain members with strong and perhaps atypical preferences over cigarette tax legislation, times the partisanship variable.

The effects of the system of campaign finance on legislative roll call votes are picked up through the effects of contributions received under that system. **Money** measures the net campaign contributions received by legislator i from groups in favor of SB161 and Proposition 99, minus those from groups opposed to the cigarette tax measures, in their most recent election. For Senators in odd numbered districts, these were contributions collected during the 1982 primary and general election campaigns, while for Senators in even numbered districts, these include contributions collected during the 1980 primary and general election campaigns. Contributions in favor include those from all identified health industry groups, organizations, or individuals, plus other contributors identified as having an obvious or a revealed interest in the measure, especially those who contributed to the Proposition 99 ballot campaign. Contributions opposed include those from tobacco industry groups or corporation, plus contributions from others identified as having an obvious or revealed interest, especially those who contributed to the anti-Prop

99 campaign. Most of these contributions were from health industry contributors.[17]

5.2 Transportation Bond

The data used to estimate Equation 1 for the transportation bond case are as follows. The dependent variable in the roll call votes equation is the vote cast by Assembly member i on SB140, taken on March 7, 1988. As in the cigarette tax case, the vote we observe, v_{1i}, is taken as a partial observation of the legislator's underlying preference for the transportation bond, V_{1i}. Votes in favor of the measure are scored 1, votes against are scored 0, and abstentions are dropped. The Assembly roll call was 54 in favor, 14 opposed, and 12 abstentions.

Constituency effects are measured with two variables, district preference for the measure and salience in the district. **Yes74** is the percent in district i voting in favor of Proposition 74, November 1988. This is intended to measure the level of support for the measure in the district, and thus the nature of constraint on the legislator from his or her district. To facilitate hypothesis tests between the delegate and institutional legislative behavior models, as with the cigarette tax case, this variable is included untransformed.

The second constituency constraint variable is **Dropoff**, measured as the percent difference between the number of votes cast in district i for the first ballot measure listed, in this case Proposition 66, and the measure of interest, Proposition 74. Dropoff is intended to measure the salience of the measure in the district, with districts for which the measure is highly salient showing less ballot dropoff, and in these districts the legislators being more highly constrained. The variable is multiplied by 1 if a majority in the district favored the measure and -1 if a majority opposed to capture the correct direction of constraint.

Party system variables are intended to measure the influence of party leadership on individual legislators as well as differences in preferences and ideology systematically related to partisanship. These effects are captured through each legislator's partisanship, **Party**, scored 1 for Democrats and -1 for Republicans. Independents are dropped. During the 1987-1988 session, the Assembly had 43 Democrats, 36 Republicans and 1 Independent. Assembly Republican leadership was initially strongly in support of the transportation bond, and so we expect Republicans, all else equal, to be more likely to favor the measure as well.

Committee system effects, as in the previous case, are operationalized as an interaction between the legislator's committee membership and partisanship. **Ways&Means***

[17] Contributions from the tobacco industry were very low during this contribution cycle with contributions ranging from $500 to $2,000 to a half dozen senators. It was not until the cigarette tax legislation was introduced as a ballot measure that the tobacco industry became mobilized in the California political arena.

is an interaction between membership on the Assembly Ways & Means Committee and the legislator's partisanship scored 1 for Democrats, 0 for Independents, and -1 for Republicans. **Trans*** is an interaction between membership on the Assembly Transportation committee and the legislator's partisanship. For both committees, we expect Republicans to be less in favor and Democrats to be less opposed than their non-committee partisan counterparts.

Effects of the system of campaign finance are measured as the contributions the legislator received from that system. **Money** is the net campaign contributions received by legislator i from groups in favor of SB140 and Proposition 74, minus those from groups opposed to the transportation bond, in their most recent election. These include contributions collected during the 1986 primary and general election campaigns. Contributions in favor include those from all identified transportation industry groups, organizations, or individuals, plus other contributors identified as having an obvious or a revealed interest in the measure, especially those who contributed to the Proposition 74 ballot campaign. Contributions opposed include those from environmental and taxpayers groups, plus contributions from others identified as having an obvious or revealed interest, especially those who contributed to the anti-Prop 74 campaign. Most of the contributions were from transportation industry contributors.

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Table 2
Model of Legislative Behavior, Cigarette Tax

Variable	Vote SB140	StdErr
%Yes99	.1508	(.0835)
Dropoff	-.3141	(.2188)
Rev&Tax*Party	-1.2058	(.9420)
Finance*Party	-1.1682	(.7657)
Hlth&Welf*Party	4.1553	(21.7023)
Party	3.2295	(1.4535)
Money	.1566	(.2756)
Constant	-9.3165	(4.8413)

Table 3
Model of Legislative Behavior, Illustrative Values and Probabilities, Cigarette Tax

Dist.Pref.	Contrib	Party	z	$P(v_i = 1)$
45	15,000	0	-3.2934	.0000
55	15,000	0	-1.7854	.0371
65	15,000	0	-.2774	.3907
45	30,000	0	-3.0585	.0011
55	30,000	0	-1.5503	.0605
65	30,000	0	-.0425	.4831
45	45,000	0	-2.8236	.0024
55	45,000	0	-1.3156	.0942
65	45,000	0	.1924	.5763
45	15,000	1	-.0639	.4745
55	15,000	1	1.4441	.9256
65	15,000	1	2.9521	.9984
45	30,000	1	.1710	.5679
55	30,000	1	1.6792	.9534
65	30,000	1	3.1871	.9993
45	45,000	1	.4059	.6576
55	45,000	1	1.9139	.9722
65	45,000	1	3.0371	.9988

Table 4
Aggregate Analysis, Cigarette Tax

District	Senator	Roll Call	$P_o(v_1 = 1)$	z	$P_1(v_1 = 1)$
1	Johnson	0	**.5294**	.	.
2	Keene	1	.5524	2.0355	.9791
3	Doolittle	0	**.6769**	-.8842	.1883
4	Nilsen	0	**.5482**	-.7592	.2239
5	Marks	1	.5170	-.4938	**.3107**
6	Greene,L.	1	.5501	1.8070	.9646
7	Boatwright	0	**.5934**	.6639	**.7466**
8	Toran	0	**.6028**	-.3108	.3780
9	Petris	1	.6806	1.9585	.9749
10	Lockyer	1	.5670	.8934	.8142
11	Alquist	1	.6810	1.0005	.8415
12	McCorquodale	1	.5722	6.5798	1.0000
13	Garamendi	1	.6074	.2448	.5967
14	Maddy	0	**.5290**	-3.6701	.0001
15	Vuich	.	.5326	1.5256	.9365
16	Stiern	1	**.4916**	.3552	.6388
17	Mello	.	.5824	6.9639	1.0000
18	Hart	1	.6179	2.1754	.9852
19	Davis	1	.6250	-.1358	**.4460**
20	Robbins	1	.5902	1.7994	.9640
21	Russell	0	**.5930**	-.8591	.1952
22	Rosenthal	1	.7319	9.0376	1.0000
23	Roberti	1	.6404	2.3604	.9909
24	Torres	1	.6030	2.1360	.9837
25	Richardson		.5566	-.2997	.3822
26	Montoya	1	.5541	6.2158	1.0000
27	Beverly	0	.4425	-3.6868	.0001
28	Watson	1	.5519	6.0484	1.0000
29	Greene	1	.6313	2.0997	.9821
30	Dills	1	.5030	-.4093	**.3412**
31	Speraw	0	**.6005**	-4.5740	.0000
32	Royce	0	**.5271**	-.3487	.3637
33	Campbell	0	**.5397**	-4.1207	.0000
34	Ayala	0	**.5144**	-.2143	.4152
35	Seymour	0	**.5816**	.6669	**.7476**
36	Presley	0	**.5167**	.3414	**.6336**
37	Carpenter	1	.5918	7.2144	1.0000
38	Craven	1	.6187	-.5132	**.3039**
39	Ellis	0	**.5798**	-1.0607	.1444
40	Deddeh	1	.5234	1.1559	.8761

Table 5
Model of Legislative Behavior,
Transportation Bond

Variable	Vote	StdErr
%Yes74	.1674	(.0706)
Dropoff	-.2155	(.1546)
Ways&Means*Party	-.4727	(.6367)
Trans*Party	1.2482	(.9867)
Party	-5.2452	(11.6569)
Money	.2811	(.4321)
Constant	-3.3500	(12.0109)

Table 6
Model of Legislative Behavior, Illustrative Values and Probabilities, Transportation Bond

Dist.Pref	Contrib	Party	z	$P(v_i = 1)$
45	10,000	0	3.9358	.9999
50	10,000	0	5.6098	1.0000
55	10,000	0	7.2798	1.0000
45	30,000	0	4.4980	1.0000
50	30,000	0	6.1720	1.0000
55	30,000	0	7.8460	1.0000
45	50,000	0	5.0602	1.0000
50	50,000	0	6.7342	1.0000
55	50,000	0	8.4082	1.0000
45	10,000	1	-1.3094	.0952
50	10,000	1	.3646	.6423
55	10,000	1	2.0346	.9791
45	30,000	1	-.7472	.2275
50	30,000	1	.9268	.8230
55	30,000	1	2.6008	.9954
45	50,000	1	-.1850	.4266
50	50,000	1	1.4890	.9318
55	50,000	1	3.1630	.9992

Table 7
Aggregate Analysis, Transportation Bond

District	Member	Roll Call	$P_o(v_1 = 1)$	z	$P_1(v_1 = 1)$
1	Statham	1	**.4064**	3.7399	.9999
2	Hauser	1	**.4650**	-.6787	**.2487**
3	Chandler	1	**.4068**	3.5576	.9998
4	Hannigan	1	.5440	.3479	.6360
5	Leslie	1	.5035	5.9072	1.0000
6	Connelly	0	**.5031**	.0967	**.5385**
7	Waters, N.	1	**.4521**	-.7833	**.2167**
8	Hansen	1	.5257	4.4517	1.0000
9	Filante	1	.5356	5.9074	1.0000
10	Isenberg	1	.5125	-.1441	**.4427**
11	Campbell	1	.6091	2.0351	.9791
12	Bates	0	**.5180**	.0236	**.5094**
13	Harris	0	.4383	-.1425	.4434
14	Klehs	1	**.4587**	-.9448	**.1724**
15	Baker	1	.5954	7.6136	1.0000
16	-	.	.5231	.	.
17	Brown, W.	1	.5820	3.6961	.9999
18	Eastin	1	.5370	1.7957	.9637
19	Speier	.	.5383	.6349	.7373
20	Duplissea	.	.5540	4.8433	1.0000
21	Sher	0	**.5061**	.2727	**.6067**
22	Quackenbush	1	**.4960**	5.0575	1.0000
23	Vasconcellos	0	**.5301**	.2524	**.5996**
24	Cortese	1	.5523	.9779	.8360
25	Areias	.	.4889	1.4056	.9201
26	Johnston	0	.4965	-.0785	.4687
27	Condit	.	.4878	.2471	.5976
28	Farr	1	.5014	.0368	.5150
29	Seastrand	.	.4212	4.5804	1.0000
30	Costa	0	.4749	-.5929	.2766
31	Bronzan	1	**.4759**	1.4282	.9234
32	Jones	1	**.4511**	5.3913	1.0000
33	Harvey	1	.5051	5.0426	1.0000
34	Wyman	1	**.4879**	3.8155	.9999
35	O'Connell	0	.4538	-1.1040	.1348
36	McClintock	1	**.4957**	5.3684	1.0000
37	Wright	1	**.4554**	4.5509	1.0000
38	LaFollette	1	**.4431**	4.5821	1.0000
39	Katz	1	**.4310**	1.7755	.9621
40	Bane	.	.4152	-.8389	.2008

Table 7 cont.

District	Member	Roll Call	$P_o(v_1 = 1)$	z	$P_1(v_1 = 1)$
41	Nolan	1	**.4697**	6.0181	1.0000
42	Mountjoy	1	**.4605**	4.6332	1.0000
43	Friedman	0	.4209	-1.0223	.1533
44	Hayden	0	.4104	-1.6464	.0498
45	Margolin	0	.4196	-1.3289	.0919
46	Ross	0	.4763	-.1128	.4551
47	Hughes	1	.7160	4.3511	1.0000
48	Waters, M.	1	.7120	3.7080	1.0000
49	Moore	1	.5928	2.0888	.9816
50	Tucker	1	.6121	2.3913	.9916
51	Felando	1	**.4702**	4.8930	1.0000
52	Hill	1	**.4706**	5.6229	1.0000
53	Floyd	1	.5322	1.4454	.9258
54	Zeltner	1	.5609	6.4469	1.0000
55	Polanco	1	**.4420**	.4859	.6865
56	Roybal-Allard	0	.4652	-.2434	.4039
57	Elder	1	.5063	.6664	.7474
58	Brown, D.	.	.5176	6.7155	1.0000
59	Calderon	.	.4516	-.3349	.3689
60	Tanner	0	.4556	-.3637	.3580
61	Leonard	1	**.4365**	4.7164	1.0000
62	Lancaster	1	**.4679**	3.6280	.9999
63	Grisham	1	**.4567**	5.3186	1.0000
64	Johnson	1	**.4790**	6.5179	1.0000
65	Bader	1	.5206	5.6241	1.0000
66	Eaves	.	.4720	.3843	.6496
67	Lewis	1	.5024	6.3496	1.0000
68	Clute	1	.5353	2.9652	.9985
69	Frizzelle	1	.5196	6.3459	1.0000
70	Ferguson	1	.5468	6.2023	1.0000
71	Allen	.	.4583	5.2154	1.0000
72	Longshore	1	**.4656**	5.3359	1.0000
73	Kelley	1	.5119	6.0360	1.0000
74	Frazee	1	.5203	4.3549	1.0000
75	Majonnier	1	.5551	6.3461	1.0000
76	Bradley	1	.5299	5.9871	1.0000
77	Stirling	1	.5445	6.2116	1.0000
78	Killea	1	.5514	2.6194	.9956
79	Chacon	1	.5846	1.9792	.9761
80	Peace	.	.5934	2.3456	.9905